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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,960	06/24/2003	Masashi Nakashita	121027-194	1202

35684 7590 02/21/2006

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ANN ARBOR, MI 48104

EXAMINER

XU, LING X

ART UNIT PAPER NUMBER

1775

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/602,960

Applicant(s)

NAKASHITA ET AL.

Examiner

Ling X. Xu

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 9-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-8 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/24/03, 10/26/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election of Group 1, claims 1-8, in the reply filed on 2/6/2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 9-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 2/6/2006.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4 and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Baker (US 5,643,238).

Baker discloses an absorbent core structure comprising an outer layer 12, a moisture-pervious inner layer 14, and a moisture-absorbent core sandwiched between the layer 12 and 14 (col. 3, lines 35-50).

Baker also discloses that the moisture-absorbent core comprising storage cells and acquisition cells in a honeycomb-like configuration (abstract). The core comprises thermoplastic synthetic fibers, super-absorbent polymer particles, and fluff pulp (see col. 5, lines 10-67 and col. 6, lines 1-40) and has a plurality of through-holes (See Figs 3-6). The through-holes extend parallel to one another in a direction parallel to the upper and lower layers, each of the through-holes having a cross-sectional dimension is considered larger than any interstices that may have in the thermoplastic synthetic fibers (col. 7, lines 55-67 and Figs. 3-6). The moisture-absorbent core can be kept in a state compressed in the thickness direction with the through-holes being flattened and can also be elastically swollen in the thickness direction so that the flattened through-hole are restored to the initial cross-sectional shape as the super-absorbent polymer absorbs water and be swollen.

With respect to claim 2, Baker discloses that the super absorbent material 34 may be in particulate or fibrous form (col. 6, lines 15-50).

With respect to claim 4, Baker discloses that the plurality of honeycomb thin walls placed upon one another in a transverse direction and are at least partially connected to each other (see Figures 3-6).

With respect to claims 7-8, Baker discloses that the cross-sectional shape of the through-hole is a substantially rectangle and the diagonals of the rectangle is substantially in coincidence with the thickness direction (col. 9, lines 40-60 and Fig. 6).

*Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baker, as applied to claim 1 above, and further in view of Brown et al. (US 2003/0104748).

As stated above, Baker discloses the same water-absorbent structure as recited in claim 1.

Baker does not disclose that the thermoplastic synthetic fibers are of crimped-type.

Brown teaches that the use of crimped type polymer has superior void volume and resilience and are useful as an absorbent core (abstract).

Therefore, it would have been obvious to one of ordinary skill in the art to use the crimped-type thermoplastic synthetic fibers in Baker's absorbent core structure in order to obtain a better absorbent article with superior void volume and resilience, as taught by Baker.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baker as applied to claim 1 above, and further in view of the same reference.

As stated above, Baker discloses the same water-absorbent structure as recited in claim 1.

Baker does not disclose that the amount of the cellulose-based fibers and the super-absorbent polymer used in the water-absorbent structure.

However, differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical.

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“[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235(CCPA 1955)

Therefore, it would have been obvious to one of ordinary skill in the art to discover the optimum or workable ranges of the cellulose-based fibers and the super-absorbent polymer used in the water-absorbent structure such as the amounts as recited in claim 6, absent of showing that such amounts are critical.

***Allowable Subject Matter***

5. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling X. Xu whose telephone number is 571-272-1546. The examiner can normally be reached on 8:00 - 4:30 Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah D. Jones can be reached on 571-272-1535. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ling X. Xu  
Primary Examiner  
Art Unit 1775